

REMARKS UNDER 37 C.F.R. 1.111

Reconsideration and allowance are respectfully requested.

It is understood that the Office Action dated October 3, 2003 is nonfinal. Box 2b has been checked on the Office Action Summary Page.

Attix has been newly cited in all rejections. Inaba has been newly applied in ¶12. New grounds of rejection are acknowledged in ¶16. It is requested that ¶21 be withdrawn.

The applicant appreciates the thorough review of the application by the examiner.

New claims 133-143 all relate to Species 1. Claims 1, 34, 67, 82, 88, 93, 97, 111, 112, 118, 123, 131, 132, 133, 134, 139, 140, 141, 143, 143, 144, 149, 150 and 158, for example, are allowable generic claims.

The changes to the drawings and claims overcome objections of the examiner. The examiner's suggestions for changes to the claims to overcome the §112 objections are appreciated and have been accomplished.

Five patent references have been cited and applied by the examiner, and one patent publication has been applied in six separate rejections.

Reed has a scintillating optical fiber 20 with aligned sections and dichroic mirrors 22 and an extension fiber 40, but does not have a single fiber or multiple fibers optically coupled to a scintillator.

Inaba has a scintillator probe for insertion in a fine tube in a body cavity of a living animal (column 1, lines 62-64) to detect cancer.

Bourdinaud has a thin plate 2 of scintillating material which receives radiation through one edge 8, and has fluorescent fibers 4 attached longitudinally along the plate. The fluorescent fibers 4 have portions 6 which are parallel, adjacent and attached to one of the two faces of the plate. The fluorescent fibers are excited by light on the plate.

Meisner has a photomultiplier within the drill head and sends electrical signals to the surface.

Kaufman has delay line 42 in a catheter which sends electrical signals to a proximal end. Nothing in the references shows or suggests the invention as described in the claims under consideration.

Reed does not have the structure as described in the claims of the application. Reed has a single optic extension fiber which is attached in continuation of a scintillating fiber. Reed has an extension fiber 40 and several sections of the scintillating fiber 20 with dichroic mirrors 22 therebetween. Reed does not have fibers connected to an scintillator, does not have photocouplers, and does not have coupling lens arrays as described in the claims.

There would have been no motivation inherent in Reed or Attix to combine one with the other. It is requested that any rejection based on a combination of Reed and Attix be withdrawn.

With regard to the rejections of the claims starting in paragraph 9 of the office action, the applicant traverses the examiner's holding of well known without citing art, and requests that those rejections be withdrawn. See, for example, page 5, ¶9, 4th paragraph and page 6 second full paragraph, and the last partial paragraph on page 9.

With regard to the rejections in paragraph 10 of the office action, it is requested that no combination of Bourdinaud and Reed be made. The law is replete with holdings that an examiner may not pick elements from references and combine them without some suggestion for their combination arising in the references themselves. Bourdinaud and Reed would have been mutually exclusive because Bourdinaud uses fluorescing cores in fibers to autogenerate wave lengths after a thin scintillator plate receives radiation at its end. Nothing in Bourdinaud would have suggested combination with Reed.

Even if the references were so combined, both of the references lead away from the invention as specifically set forth in the claims. Bourdinaud's fluorescent fibers excited by light from one side of the scintillator plate has nothing to do with Reed or with the present invention. It is requested that the rejections in paragraph 10 be withdrawn.

The same request is made for the rejections based on a combination of references in paragraph 11 on page 14 of the office action. There is nothing inherent in the references which

would have suggested their combination, and specifically nothing would have suggested the combination of Reed with Bourdinaud.

Meisner suggests placing a photomultiplier tube in the drill head, and thus would lead away from the invention and would lead away from combination with the other references.

It is requested that the rejections in paragraph 11 of the office action be withdrawn.

It is requested that the rejection in paragraph 12 be withdrawn. Inaba's thin scintillator for use in a thin tube in an animal body cavity has no relation and no motivation for combination with Reed or Attix.

It is requested that the rejections in paragraph 13 be withdrawn. Kaufman places a catheter in body lumen next to radioactively labelled regions. Kaufman has a delay line 42 in the catheter head which sends electrical signals to a signal processor outside the catheter, and thus would have lead away from the present invention even had it been combined with Reed. There is absolutely nothing in Kaufman or Reed or in Kaufman and Attix, or in Kaufman and Inaba which would have suggested their mutual combination in a manner proposed by the examiner.

It is requested that the rejection in paragraph 12 be withdrawn.

With regard to the arguments in paragraphs 16-19, it is believed, upon reconsideration, that the examiner will agree that there must have been some motivation for combination within the prior art at the time the invention was made, and that motivation

cannot have been taken from the invention itself. Therefore the unmotivated combination of references cannot be relied upon as having rendered the present invention obvious.

It is requested that the rejection of paragraph 14 be withdrawn. Nothing inherent in the five distinct references would have suggested their combination at the time the present invention was made and in the manner now proposed by the examiner.

The added claims fall within Species 1 and distinguish the invention from the prior art by specifically pointing out the fiber or fibers attached to a relatively large scintillator with optical couplings or lens arrays, which are not found in the references, and other features specifically pointed out in the new claims.

#### **SUMMARY**

The drawings have been corrected as suggest by the examiner. If a further correction is necessary, please point out what should be shown.

The claims have been corrected as suggest by the examiner. New claims that have been submitted fall within Species 1.

**CONCLUSION**

Reconsideration and allowance of all claims is requested.

Respectfully,

A handwritten signature in cursive script, appearing to read "JC Wray".

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